monoclonal antibodies are prepared from mouse ascites fluid by ammonium sulfate precipitation or chromatography on immobilized Protein A. Partially purified immunoglobulin is covalently attached to a chromatographic resin such as CNBr-activated SEPHAROSE (Pharmacia Biotech). The antibody is coupled to the resin, the resin is blocked, and the derivative resin is washed according to the manufacturer's instructions.

D6 cont.

IN THE CLAIMS

Please cancel Claims 5 and 14-29 without prejudice.

Please add new claims 30-42 as follows. A clean version of all pending claims is presented below.

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30. (New) An isolated polynucleotide encoding a polypeptide selected from the group consisting of:

a) an amino acid sequence of SEQ ID NO:2, and

b) a fragment of an amino acid sequence of SEQ ID NO:2, wherein said fragment has kinase activity.

31. (New) An isolated polynucleotide of claim 30 which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2.

D7

32. (New) An isolated polynucleotide of claim 30 which encodes a polypeptide comprising a fragment of an amino acid sequence of SEQ ID NO:2, wherein said fragment has kinase activity.

33. (New) A recombinant polynucleotide comprising a promoter sequence operably linked to a polynucleotide of claim 30.

34. (New) A cell transformed with a recombinant polynucleotide of claim 33.

35. (New) A method for producing a polypeptide encoded by the polynucleotide of claim 30, the method comprising:

a) culturing a cell under conditions suitable for expression of the polypeptide, wherein said cell is transformed with a recombinant polynucleotide, and said recombinant polynucleotide comprises a promoter sequence operably linked to a polynucleotide of claim 30, and

b) recovering the polypeptide so expressed.

36. (New) An isolated polynucleotide comprising a polynucleotide sequence selected from the group consisting of:

a) the polynucleotide sequence of SEQ ID NO:1,

b) a naturally occurring polynucleotide sequence having greater than 92% sequence identity to the polynucleotide sequence of SEQ ID NO:1,

c) a polynucleotide sequence complementary to a),

d) a polynucleotide sequence complementary to b), and

e) an RNA equivalent of a)-d).

37 cont.

37. (New) A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 36, the method comprising:

a) hybridizing the sample with a probe comprising at least 16 contiguous nucleotides comprising a sequence complementary to said target polynucleotide in the sample, and which probe specifically hybridizes to said target polynucleotide, under conditions whereby a hybridization complex is formed between said probe and said target polynucleotide or fragments thereof, and

b) detecting the presence or absence of said hybridization complex, and, optionally, if present, the amount thereof.

38. (New) A method of claim 37, wherein the probe comprises at least 30 contiguous nucleotides.

39. (New) A method of claim 37, wherein the probe comprises at least 60 contiguous

nucleotides.

40. (New) A method for detecting a target polynucleotide in a sample, said target polynucleotide having a sequence of a polynucleotide of claim 36, the method comprising:

a) amplifying said target polynucleotide or fragment thereof using polymerase chain reaction amplification, and

b) detecting the presence or absence of said amplified target polynucleotide or fragment thereof, and, optionally, if present, the amount thereof.

41. (New) A method for screening a compound for effectiveness in altering expression of a target polynucleotide, wherein said target polynucleotide comprises a sequence of claim 31, the method comprising:

a) exposing a sample comprising the target polynucleotide to a compound, under conditions suitable for the expression of the target polynucleotide,

b) detecting altered expression of the target polynucleotide, and

c) comparing the expression of the target polynucleotide in the presence of varying amounts of the compound and in the absence of the compound.

D7 cont.

42. (New) A method for assessing toxicity of a test compound, said method comprising:

a) treating a biological sample containing nucleic acids with the test compound;

b) hybridizing the nucleic acids of the treated biological sample with a probe comprising at least 16 contiguous nucleotides of a polynucleotide of claim 36 under conditions whereby a specific hybridization complex is formed between said probe and a target polynucleotide in the biological sample, said target polynucleotide comprising a polynucleotide sequence of a polynucleotide of claim 36 or fragment thereof;

c) quantifying the amount of hybridization complex; and

d) comparing the amount of hybridization complex in the treated biological sample with the amount of hybridization complex in an untreated biological sample, wherein a difference in the amount of hybridization complex in the treated biological sample is indicative of toxicity of the test compound.